REMARKS

Amendment Summary

Claim 1 is amended to further clarify the nature of the emulsifier systems being claimed. The range of weight percents for the polyglycerol ester component is now 70 to 100% and the nature of the fatty acid groups esterified on the backbone is further defined. Support for the limitation concerning weight percent ("from 70 to 100%, by weight") is found in the specification by combining the disclosure of Example 3 with the disclosure at p. 11, lines 11-14 (indicating that the emulsifier system can contain only one or a combination of PGEs or DATEM). Support for an emulsifier system containing only PGE (i.e., 100% by weight) is also found at p. 3, lines 17-22, where the specification provides that the emulsifier system comprises PGE, DATEM or a mixture thereof. No new matter is added. (*See* In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976.) Support for the Markush group describing the fatty acid aspect of Claim 1 is found at p. 10, lines 12-14, of the specification. No new matter is added.

Claim 6 is presently cancelled.

Claims 13-37 were previously cancelled, in view of the Examiner's withdrawal of those claims from prosecution as corresponding to non-elected subject matter.

Claims 38-41 were previously added and are directed to preferred emulsifier systems.

Claims 1-5, 7-12 and 38-41 are pending after entry of the amendments requested in this paper.

Traversal of Prior Art Rejections

Section 102 Rejection Over Seiden:

Claims 1-10 and 12 are rejected as being anticipated under 35 USC 102(b) by U.S. Patent No. 4,680,184 to Seiden et al. (hereafter "Seiden"). At page 2 of the Action, the Examiner asserts that Seiden discloses emulsifier compositions that contain (i) 0-60% fatty acid esters of polyols (the Examiner characterizes PGEs as being within this polyol description by Seiden), (ii) fatty acid mono-diglyceride and (iii) fatty acid monoglyceride esters of polycarboxylic acids. (Applicants note that component (iii) (monoglyceride esters of polycarboxylic acids) is actually mentioned by Seiden et al. as an optional ingredient.)

With respect to the mono-diglyceride component, Seiden provides that this material is included in an amount of from about 40 to about 100% by weight. (See Summary of the Invention at Col. 2.) At Col. 4, lines 21-25, Seiden provides that it is preferred that the described emulsifier compositions comprise from about 50 to 100%, more preferably from about 70 to 100%, mono-diglyceride. In contrast, Applicants' amended Claim 1 now provides that the emulsifier system comprises 70-100% of the polyglycerol ester (PGE) material(s). Clearly, if any mono-diglyceride were included in Applicants' emulsifier system, it would only be at a level up

to 30%, which is well below the teaching of Seiden. Applicants respectfully submit that Seiden does not describe Applicants' high PGE-content emulsifier systems. Moreover, Seiden does not suggest that such systems would provide beneficial properties, particularly when one considers that Seiden prefers much higher mono-diglyceride content and, therefore, much lower polyglycerol ester content.

Withdrawal of the anticipation rejection over Seiden is respectfully requested.

Section 102 Rejection Over Gruning:

Claims 1, 38 and 40 are rejected as being anticipated under 35 USC 102(e) by U.S. Patent No. 6,242,499 to Gruning et al. (hereafter "Gruning").

The Examiner asserts that Gruning describes polyglycerol ester emulsifiers that read on Applicants' claims. The Examiner specifically asserts that Gruning teaches esters obtained by esterification of a polyglycerol mixture with fatty acids having from 12-22 carbons, and that the degree of esterification is between 30 and 75%. The Examiner further asserts that Gruning teaches polyglycerol esters where the backbone of the polyglycerol has oligomer distribution overlapping with that claimed by Applicants.

The crux of the Gruning reference is the use of polyfunctional carboxylic acids to form polyglycerol esters that are improved water-in-oil ("W/O") emulsifiers. At the paragraph spanning Columns 1 and 2, Gruning et al. state that

> [i]t was an object of the invention to provide novel polyglycerol esters which can be prepared from nature materials and, compared with polyglycerol polyhydroxystearate exhibit the additional advantage of improved stability, in particular higher freeze-thaw stability, of the W/O emulsions prepared therewith.
>
> Extended storage at very low temperatures or extreme temperature changes during relatively long transport distances can cause the inadequate emulsion stability to become apparent..., or even can result in complete emulsion break-down, which is avoided by the novel solution to the-object [sic].

In the Field of the Invention section, Gruning indicates that the emulsifiers described are useful in the cosmetic, pharmaceutical and micropigments fields.

In contrast, Applicants have amended Claim 1 to describe the fatty acid(s) used in forming the claimed PGEs. Specifically, Claim 1 now provides that the fatty acids are selected from oleic acid, palmitic acid, stearic acid, intermediate melting fatty acids, and mixtures thereof. Thus, the claims do not encompass the polyfunctional carboxylic acid containing polyglycerols described by Gruning.

Applicants submit that the claims do not encompass the emulsifier compositions described by Gruning et al. Withdrawal of the anticipation rejection is requested.

CONCLUSION

Applicants have amended the claims to further define the scope of the claimed invention. Because the amendments address rejections made over references first set forth in the last Action, and because the amendments put the case in better condition for allowance, entry of those amendments is proper under 37 CFR 1.116.

Based on the amendments, Applicants submit that the separate Section 102 rejections over the Seiden and Gruning references should be withdrawn. Allowance is respectfully requested.

Respectfully submitted,

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